

### IN THE CLAIMS:

Please amend the claims to read as follows:

1.-37. (Cancelled)

38. (Currently Amended) A method for identifying whether a compound inhibits cellular entry of a population of viruses infecting a patient ~~into a plurality of cells~~, comprising:

- (a) contacting a plurality of viral particles with ~~said plurality of cells~~ in the presence of the compound, wherein the ~~plurality of~~ cells express a cell surface receptor to which the plurality of viral particles bind, and wherein the plurality of viral particles comprise: (i) a viral expression vector that lacks a nucleic acid encoding a viral envelope protein and which comprises an indicator nucleic acid that produces a detectable signal, and (ii) a plurality of viral envelope proteins derived from the population of viruses infecting the patient, wherein said envelope proteins are expressed from nucleic acids amplified from a sample from said patient;
- (b) measuring the amount of the detectable signal produced by the ~~plurality of~~ cells; and
- (c) comparing the amount of signal measured in step (b) with the amount of the detectable signal produced by the cells in the absence of the compound, wherein a reduced amount of the detectable signal measured in (b) relative to the amount measured in the absence of the compound indicates that the compound inhibits cellular entry of the population of viruses infecting the patient ~~into the plurality of cells~~.

39. (Previously Presented) The method of claim 38, wherein the viral particle is produced by co-transfecting into a cell (i) a plurality of nucleic acids obtained from a patient infected by the virus, wherein said plurality of nucleic acids encode envelope proteins from the viral population infecting the patient and (ii) a viral expression vector lacking a nucleic acid encoding an envelope protein, wherein the vector comprises an indicator nucleic acid that produces a detectable signal.

40. (Previously Presented) The method of claim 38, wherein the amount of detectable signal produced by the cell in the absence of the compound is measured by contacting

the plurality of viral particles with the plurality of cells of step (a) in the absence of the compound.

41. (Previously Presented) The method of claim 38, wherein the indicator nucleic acid comprises an indicator gene.
42. (Previously Presented) The method of claim 41, wherein the indicator gene is a luciferase gene.
43. (Previously Presented) The method of claim 38, wherein the cell surface receptor is CD4.
44. (Previously Presented) The method of claim 43, wherein the plurality of cells also express a chemokine receptor.
45. (Previously Presented) The method of claim 44, wherein the chemokine receptor is CXCR4 or CCR5.
46. (Previously Presented) The method of claim 38, wherein the cell surface receptor is a chemokine receptor.
47. (Previously Presented) The method of claim 46, wherein the cell surface receptor is CXCR4 or CCR5.
48. (Previously Presented) The method of claim 38, wherein the patient is infected with an HIV virus.
49. (Previously Presented) The method of claim 38, wherein the plurality of nucleic acids derived from the patient comprise nucleic acids that encode gp120 or gp41.
50. (Previously Presented) The method of claim 38, wherein the plurality of nucleic acids derived from the patient comprise nucleic acids that encode gp160.
51. (Previously Presented) The method of claim 38, wherein the viral expression vector comprises HIV nucleic acid.

52. (Previously Presented) The method of claim 51, wherein the viral expression vector comprises an HIV gag-pol gene.
53. (Previously Presented) The method of claim 51, wherein the viral expression vector comprises nucleic acid encoding vif, vpr, tat, rev, vpu, and nef.
54. (Previously Presented) The method of claim 52, wherein the viral expression vector comprises nucleic acid encoding vif, vpr, tat, rev, vpu, and nef.
55. (Previously Presented) The method of claim 39, wherein the cell is a mammalian cell.
56. (Previously Presented) The method of claim 55, wherein the mammalian cell is a human cell.
57. (Previously Presented) The method of claim 56, wherein the human cell is a human embryonic kidney cell.
58. (Previously Presented) The method of claim 57, wherein the human embryonic kidney cell is a 293 cell.
59. (Previously Presented) The method of claim 38, wherein the plurality of cells are human T cells.
60. (Previously Presented) The method of claim 59, wherein the plurality of cells are human T cell leukemia cells.
61. (Previously Presented) The method of claim 38, wherein the plurality of cells are peripheral blood mononuclear cells.
62. (Previously Presented) The method of claim 38, wherein the plurality of cells are astrogloma cells.
63. (Previously Presented) The method of claim 62, wherein the astrogloma cells are U87 cells.

64. (Previously Presented) The method of claim 38, wherein the plurality of cells are human osteosarcoma cells.
65. (Previously Presented) The method of claim 64 wherein the human osteosarcoma cells are HT4 cells.
66. (Previously Presented) The method of claim 38, wherein the compound binds to the cell surface receptor.
67. (Previously Presented) The method of claim 38, wherein the compound is a ligand of the cell surface receptor.
68. (Previously Presented) The method of claim 66 wherein the compound comprises an antibody.
69. (Previously Presented) The method of claim 38, wherein the compound inhibits membrane fusion.
70. (Previously Presented) The method of claim 38, wherein the compound is a peptide, a peptidomimetic, a small organic molecule, or a synthetic compound.
71. (Previously Presented) The method of claim 38, wherein the compound binds the plurality of viral envelope proteins.
72. (Cancelled)
73. (Currently Amended) A method for determining susceptibility of a population of viruses infecting a patient to a compound that inhibits viral cell entry comprising:
  - (a) contacting a plurality of viral particles with a sample of cells in the presence of the compound, wherein the cells from the sample express a cell surface receptor to which the population of viruses binds, and wherein the plurality of viral particles comprise: (i) a viral expression vector that lacks a nucleic acid encoding a viral envelope protein, but which comprises an indicator nucleic acid that produces a detectable signal, and (ii) a plurality of viral envelope proteins derived from the population of viruses infecting the patient, wherein

said envelope proteins are expressed from nucleic acids amplified from a sample from said patient;

(b) measuring the amount of the detectable signal produced by the sample of cells;  
and

(c) comparing the amount of signal measured in step (b) with the amount of the detectable signal produced by the cell in the absence of the compound,

wherein a reduced amount of the detectable signal measured in (b) relative to the amount measured in the absence of the compound indicates that the population of viruses infecting the patient is susceptible to the compound.

74. (Previously Presented) The method of claim 73, wherein the patient is infected with a population of HIV viruses.

75. (Previously Presented) The method of claim 73, wherein the viral particle is produced by co-transfecting into a cell (i) the plurality of nucleic acids derived from the population of viruses infecting the patient, wherein each nucleic acid encodes a viral envelope protein from the population of viruses infecting the patient, and (ii) a viral expression vector lacking a nucleic acid encoding an envelope protein, wherein the vector comprises an indicator nucleic acid that produces a detectable signal.

76. (Previously Presented) The method of claim 73, wherein the cell surface receptor is CD4.

77. (Previously Presented) The method of claim 76, wherein the cells from the sample also express a chemokine receptor.

78. (Previously Presented) The method of claim 77, wherein the chemokine receptor is CXCR4 or CCR5.

79. (Previously Presented) The method of claim 75, wherein the plurality of nucleic acids comprise nucleic acids that encode gp120 or gp41.

80. (Previously Presented) The method of claim 73, wherein the plurality of nucleic acids comprise nucleic acids that encode gp160.

81. (Currently Amended) A method for determining susceptibility of a population of viruses infecting a patient to a compound that inhibits viral cell entry, said method comprising:
- (a) contacting a plurality of viral particles with a sample of cells in the presence of the compound, wherein the cells of the sample express a cell surface receptor to which the viral particles bind, and wherein the plurality of viral particles comprise: (i) a viral expression vector that lacks a nucleic acid encoding an envelope protein of the virus, but which comprises an indicator nucleic acid that produces a detectable signal, and (ii) a plurality of viral envelope proteins derived from the population of viruses infecting the patient, wherein said envelope proteins are expressed from nucleic acids amplified from a sample from said patient;
  - (b) measuring the amount of the detectable signal produced by the sample of cells; and
  - (c) comparing the amount of signal measured in step (b) with the amount of the detectable signal produced by the cell in the absence of the compound,
- wherein a reduced amount of the detectable signal measured in (b) relative to the amount measured in the absence of the compound indicates that the viral population infecting the patient is susceptible to the compound.
82. (Previously Presented) The method of claim 81, wherein the patient is infected with an HIV viral population.
83. (Previously Presented) The method of claim 81, wherein the plurality of viral particles are produced by co-transfecting into a sample of cells (i) a plurality of nucleic acids, each encoding a viral envelope protein from the viral population infecting the patient, and (ii) a viral expression vector lacking a nucleic acid encoding an envelope protein, wherein the vector comprises an indicator nucleic acid that produces a detectable signal.
84. (Previously Presented) The method of claim 81, wherein the cell surface receptor is CD4.

85. (Previously Presented) The method of claim 84, wherein the cells of the sample of cells also express a chemokine receptor.
86. (Previously Presented) The method of claim 85, wherein the chemokine receptor is CXCR4 or CCR5.
87. (Previously Presented) The method of claim 81, wherein the plurality of envelope proteins are gp120 or gp41.
88. (Previously Presented) The method of claim 81, wherein the plurality of envelope proteins are gp160.
89. (New) The method of claim 38, wherein nucleic acids amplified from the sample from the patient are amplified in a single amplification reaction.
90. (New) The method of claim 73, wherein the nucleic acids amplified from the sample from the patient are amplified in a single amplification reaction.
91. (New) The method of claim 83, wherein the nucleic acids amplified from the sample from the patient are amplified in a single amplification reaction.
92. (New) The method of claim 38, wherein the nucleic acids amplified from the sample from the patient are each about 2.5 kB in length.
93. (New) The method of claim 73, wherein the nucleic acids amplified from the sample from the patient are each about 2.5 kB in length.
94. (New) The method of claim 83, wherein the nucleic acids amplified from the sample from the patient are about 2.5 kB in length.